We Claim:

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1. A pulmonary liquid or dry formulation comprising a GLP-1 compound whereto is attached a lipophilic substituent optionally via a spacer.

2. The pulmonary formulation of claim 1 wherein said GLP-1 compound is exendin or an analog thereof or a GLP-1 analogue.

3. The pulmonary formulation of claim 2 wherein said GLP-1 compound is exendin-3, exendin-4 or Arg^{34}-GLP-1(7-37)-OH.

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4. The pulmonary formulation of ~~any one of claims 1-3~~ CLAIM 1 wherein said lipophilic substituent comprises 4-40 carbon atoms.

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5. The pulmonary formulation of ~~any one of claims 1-4~~ CLAIM 1 wherein said lipophilic substituent is hexadecanoyl.

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6. The pulmonary formulation of ~~any one of claims 1-5~~ CLAIM 1 wherein a spacer is present.

7. The pulmonary formulation of claim 6 wherein said spacer is γ-Glu or β-Ala.

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8. The pulmonary formulation of claim 1 wherein said GLP-1 compound whereto is attached a lipophilic substituent via a spacer is $Arg^{34}Lys^{26}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-hexadecanoyl)))-GLP-1(7-37)-OH, Arg^{18}, Leu^{20}, Gln^{34}, Lys^{33} (N^{ε}-(γ-aminobutyroyl(N^{α}-hexadecanoyl))) Exendin-4-(7-45)-NH_2 or Arg^{33}, Leu^{20}, Gln^{34}, Lys^{18} (N^{ε}-(γ-aminobutyroyl(N^{α}-hexadecanoyl))) Exendin-4-(7-45)-NH_2.

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9. A pulmonary delivery device comprising a formulation according to ~~any one of claims 1-8.~~ CLAIM 1

10. A pulmonary delivery device comprising a GLP-1 compound whereto is attached a lipophilic substituent optionally via a spacer.

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11. A method for preparing a pulmonary liquid or dry formulation for use in a pulmonary device, said formulation comprising a GLP-1 compound whereto is attached a lipophilic substituent optionally via a spacer.

12. A method for preparing a pulmonary delivery device, said device comprising a GLP-1 compound whereto is attached a lipophilic substituent optionally via a spacer.

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13. A method of reducing blood glucose levels, treating diabetes type I, diabetes type II, or obesity, or inhibiting gastric acid secretion, or inhibiting apoptosis of β-cells, comprising administering to a patient in need thereof an effective amount of a GLP-1 compound whereto is attached a lipophilic substituent optionally via a spacer by inhalation so as to deposit said GLP-1 compound whereto is attached a lipophilic substituent optionally via a spacer in the lungs of the patient.

14. Use of a GLP-1 compound whereto is attached a lipophilic substituent optionally via a spacer for the preparation of a pulmonary delivery device for reducing blood glucose levels, treating diabetes type I, diabetes type II, obesity, gastric ulcers, or for inhibition of apoptosis of β-cells.

15. The use according to claim 14, wherein said GLP-1 compound whereto is attached a lipophilic substituent optionally via a spacer is $Arg^{34}Lys^{26}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-hexadecanoyl)))-GLP-1(7-37)-OH.

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